

"Express Mail" Label No. EV 338468666 US

Date of Deposit 2/26/04

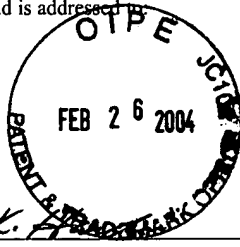
PATENT

Attorney Docket No.: 021390-003710US

Client Reference No.: MPI00-616P1R

I hereby certify that this is being deposited with the United States Postal Service "Express Mail Post Office to Address" service under 37 CFR 1.10 on the date indicated above and is addressed to:

Mail Stop RCE
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450



By: James K. ...

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

Daniel Levy, *et al.*

Application No.: 09/989,348

Filed: November 20, 2001

For: ADENINE BASED INHIBITORS
OF ADENYLYL CYCLASE,
PHARMACEUTICAL COMPOSITIONS,
AND METHODS OF USE THEREOF

Examiner: Mark L. Berch

Art Unit: 1624

INFORMATION DISCLOSURE
STATEMENT UNDER 37 CFR §1.97 and
§1.98

Mail Stop RCE
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

The references cited on the attached forms PTO/SB/08A and PTO/SB/08B are being called to the attention of the Examiner. Copies of the references are also enclosed herewith. It is respectfully requested that the cited references be expressly considered during the prosecution of this application, and the references be made of record therein and appear among the "references cited" on any patent to issue therefrom.

Also enclosed is a copy of the International Search Report directed to the corresponding International Patent Application No. PCT/US01/43294.

As provided for by 37 CFR 1.97(g) and (h), no inference should be made that the information and references cited are prior art merely because they are in this statement and no representation is being made that a search has been conducted or that this statement encompasses all the possible relevant information.

Applicant believes that no fee is required for submission of this statement. However, if a fee is required, the Commissioner is authorized to deduct such fee from the undersigned's Deposit Account No. 20-1430. Please deduct any additional fees from, or credit any overpayment to, the above-noted Deposit Account.

Respectfully submitted,



William B. Kezer
Reg. No. 37,369

TOWNSEND and TOWNSEND and CREW LLP
Two Embarcadero Center, Eighth Floor
San Francisco, California 94111-3834
Tel: 925-472-5000
Fax: 925-472-8895
WBK:jvl
60134231 v1

Substitute for form 1449A/PTO

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(use as many sheets as necessary)

Sheet 1 of 2

Complete if Known

Application Number	09/989,348
Filing Date	November 20, 2001
First Named Inventor	Daniel Levy
Art Unit	1624
Examiner Name	Mark L. Berch
Attorney Docket Number	021390-003710US

U.S. PATENT DOCUMENTS+

Examiner Initials*	Cite No. ¹	Document Number Number Kind Code ² (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	1.	4,224,438 A	09-23-1980	Fauland et al.	

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Foreign Patent Document			Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶
		Country Code ³	Number ⁴	Kind Code ⁵ (if known)				
								<input type="checkbox"/>
								<input type="checkbox"/>

Examiner
SignatureDate
Considered

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ¹ Applicant's unique citation designation number (optional). ² Kind Codes of U.S. Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

60134231 v1

Substitute for form 1449B/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet 2 of 2

Complete if Known

Application Number	09/989,348
Filing Date	November 20, 2001
First Named Inventor	Daniel Levy
Art Unit	1624
Examiner Name	Mark L. Berch
Attorney Docket Number	021390-003710US

NON PATENT LITERATURE DOCUMENTS

Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
	2.	BAKER, B. et al., "Simulation of 5'-phosphoribosyl binding V. Inhibition of succinoadenylate kinosynthetase by 6-mercapto-9-purinyllalkanoic acid derivatives of 4- and 5-aminosalicylic acid" <u>Journal of Pharmaceutical Science</u> 54:1609-1615 (1965).	
	3.	DESAUBRY, L. et al., "Inhibition of adenylyl cyclase by a family of newly synthesized adenine nucleoside 3'-polyphosphates" <u>Journal of Biological Chemistry</u> 271(24):14028-14034 (1996).	
	4.	HISATOME, M. et al., "Porphyrins coupled with nucleoside bases. Synthesis and characterization of adenine- and thymine-porphyrin derivatives" <u>Chemical Letters</u> 12:2251-2254 (1990).	
	5.	HOLY, A., "Synthesis of new mono- and disubstituted hydroxyalkyl and aminoalkyl derivatives of heterocyclic bases" <u>Collect. Czech. Chem. Commun.</u> 43(12):3444-65 (1978).	
	6.	ISHIDA, T. et al., "Structural studies of the interaction between indole derivatives and biologically important aromatic compounds. IV. The crystal and molecular structure of tryptamine: adenine-9-ylacetic acid (1:1) hemihydrate complex" <u>Bulletin of the chemical Society of Japan</u> 52:2953-2958 (1979).	
	7.	MAKINSKY, A. et al., "Polymethylene derivatives of nucleic bases with ω -functional groups: II. Adenine and hypoxanthine derivatives" <u>Russian Journal of Bioorganic Chemistry</u> 27(3):167-172 (2001).	
	8.	SAINTOME, C. et al., "Photochemistry of 4-thiothymine derivatives in the presence of N-9-substituted-adenine derivatives: formation of N-6-formamidopyrimides" <u>Journal of Organic Chemistry</u> 62:8125-8130 (1997).	
	9.	SHOSHANI, I. et al., "Enzymatic synthesis of unlabeled and beta - ³² P-labeled beta -L-2',3'-dideoxyadenosine-5'-triphosphate as a potent inhibitor of adenylyl cyclases and its use as reversible binding ligand" <u>Journal of Biological Chemistry</u> 274(49):34735-34741 (1999).	
	10.	WEISSER, M. et al., "Adenine-uridine base pairing at the water-solid-interface" <u>Journal of the American Chemical Society</u> 122:87-95 (2000).	

60134231 v1

Examiner
SignatureDate
Considered

* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached.

60134231 v1